

SAR GIS & MapSAR

Spring 2014 GISS Intermediate

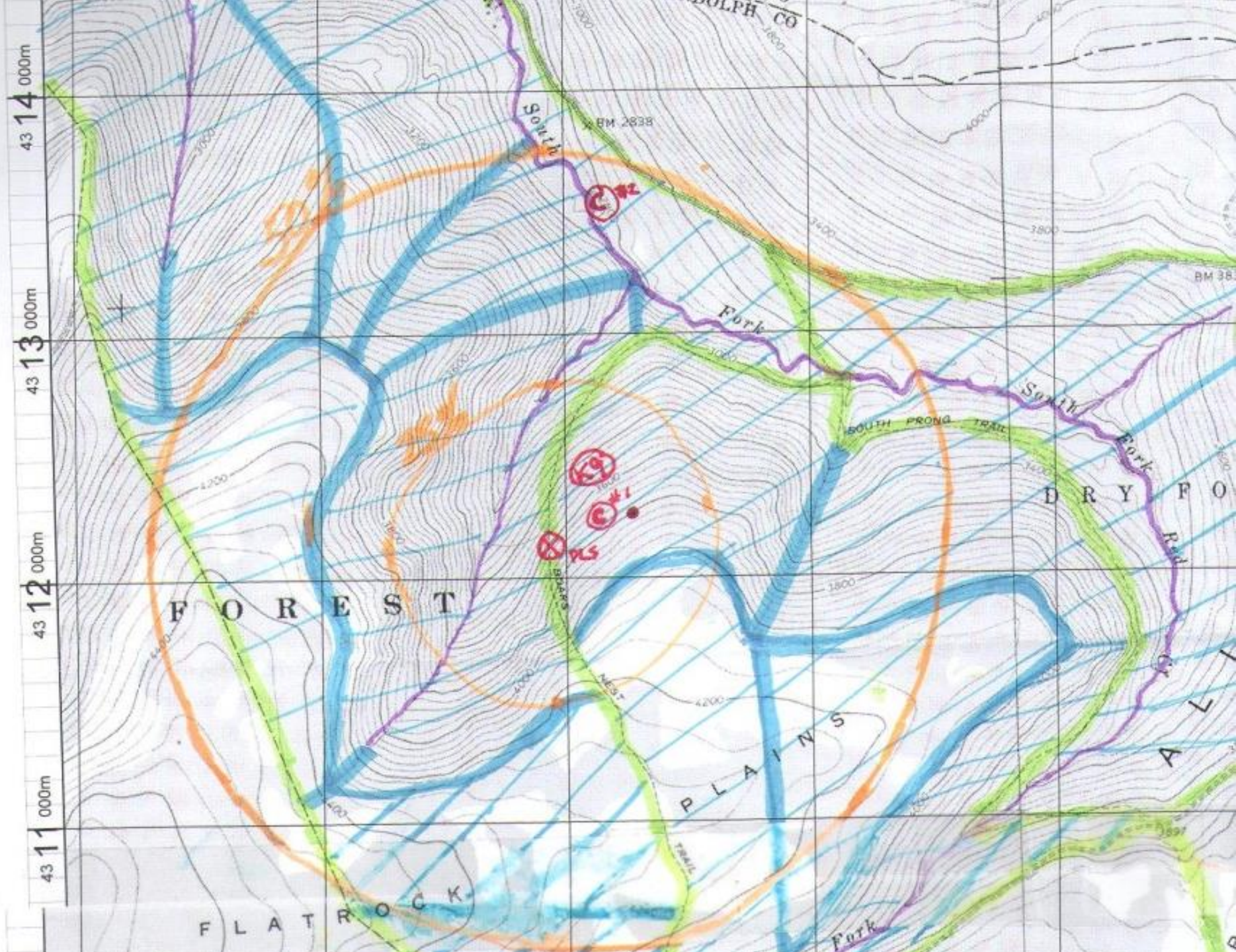
Vanessa Glynn-Linaris

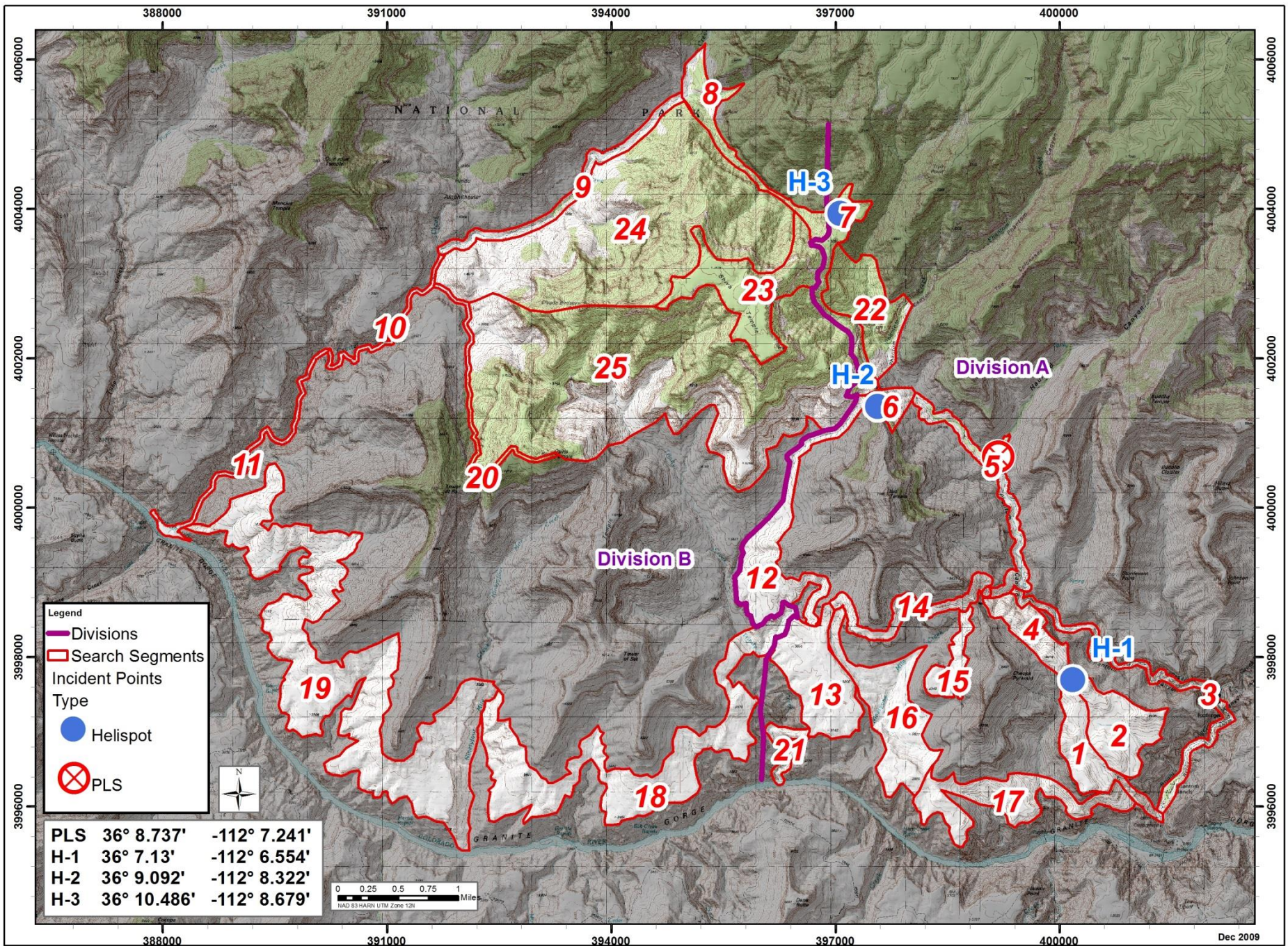


The Search Problem

- A geographical problem
 - Where is the missing person?
- A tactical problem
 - How do we maximize the probability of detection?
- An organization problem
 - How do we organize the search effort?
- A logistical problem
 - Which resources are needed and where should they be used?
- A technological problem
 - How can information technology increase the efficiency of the SAR effort?





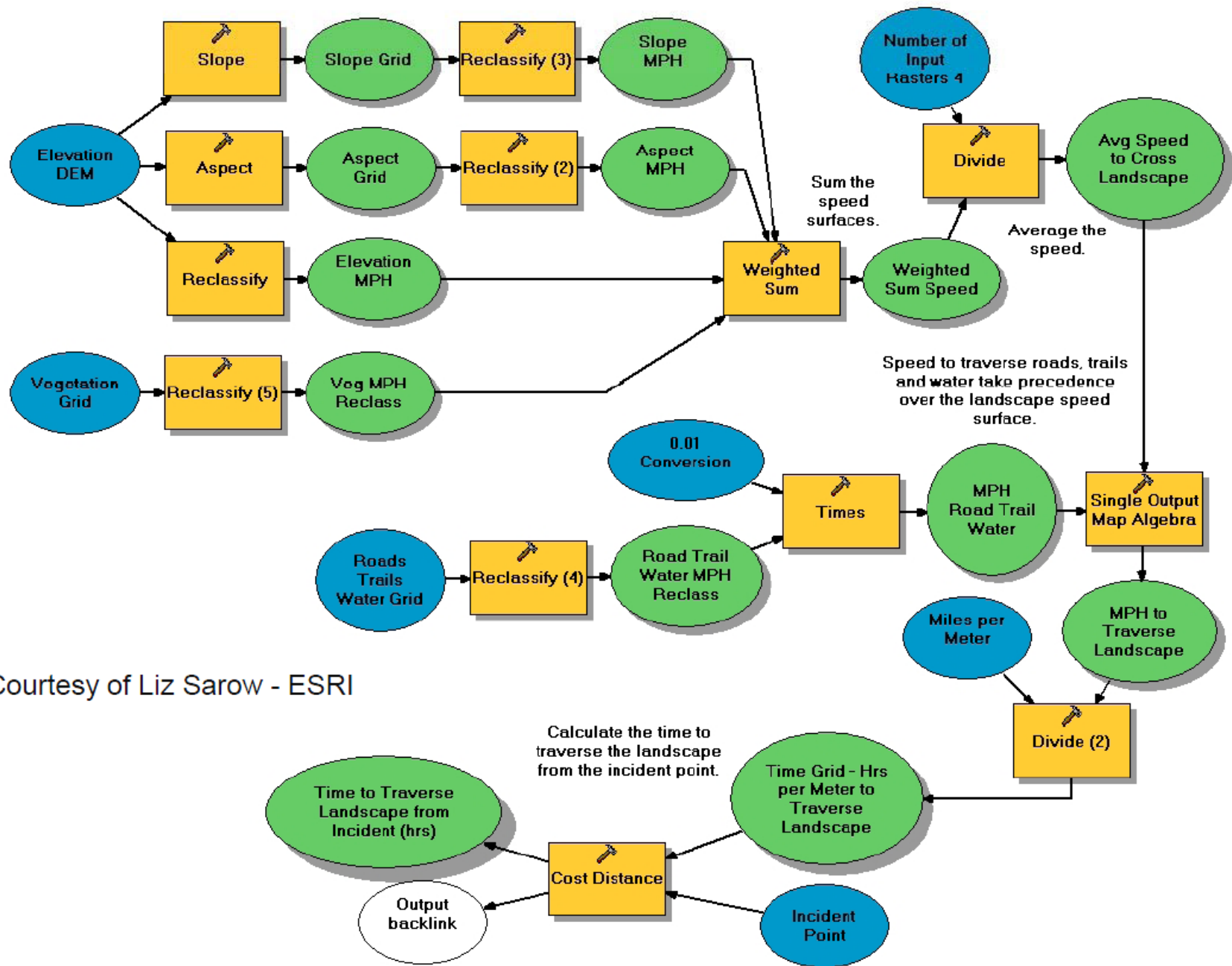


What Can GIS Do for SAR?

- Situational Awareness
 - Resource locations
 - Hazard locations
 - Search efforts, clues found
 - Probability of detection (How far could subject travel in x hours?)
 - Factors used to make assignments (slope, elevation, drainages, size of area, vegetation density, etc.)
- Analytical Tool
 - Model potential search areas
 - Model 3D
- Track & Document Spatial Data & Progress



Time to Traverse the Landscape from the Incident Location



Courtesy of Liz Sarow - ESRI

ArcGIS Online (AGOL)

- Must have access to internet
- Free personal accounts, or fee-based organizational accounts
- Can share information to anyone with internet access and login

<http://arcgisforwisar.maps.arcgis.com/home/index.html>



Details

Add ▼

Edit

Basemap

Save ▼

Share

Print

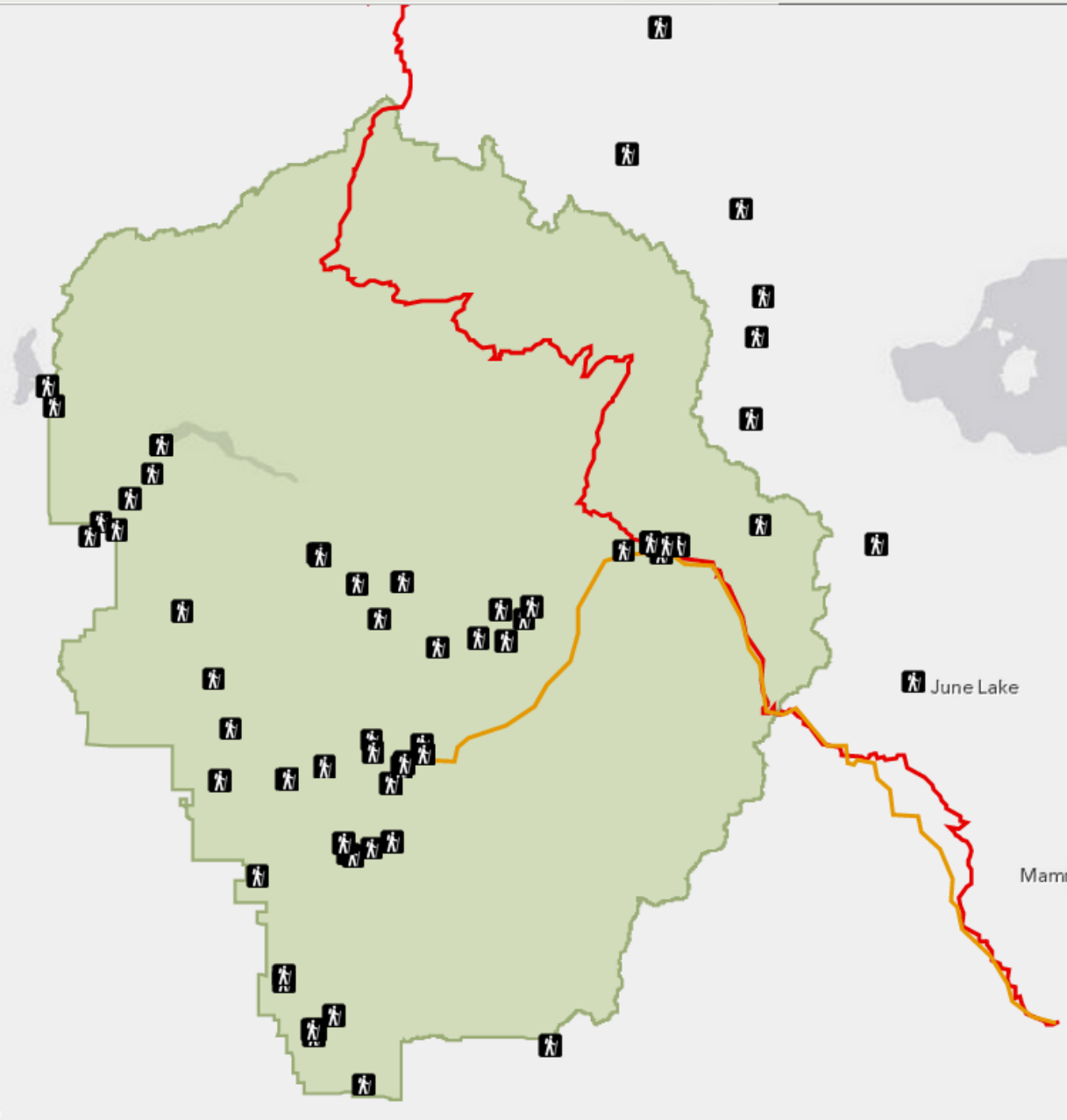
Measure

Bookmarks

**Legend****Trailheads****Trails**

John Muir Trail

Pacific Crest Trail

Boundary

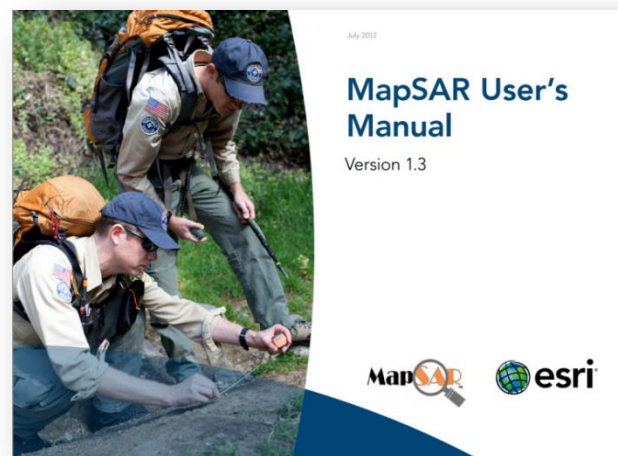
What is MapSAR?

- [Maps Movie](#)
- ArcGIS for Desktop 10.0, 10.1, and 10.2
- Free extension
 - Download from mapsar.net
 - Instructional videos at <http://www.youtube.com/user/napsggis>
- Data model with symbology
- Utilizes UTM



Goals of MapSAR

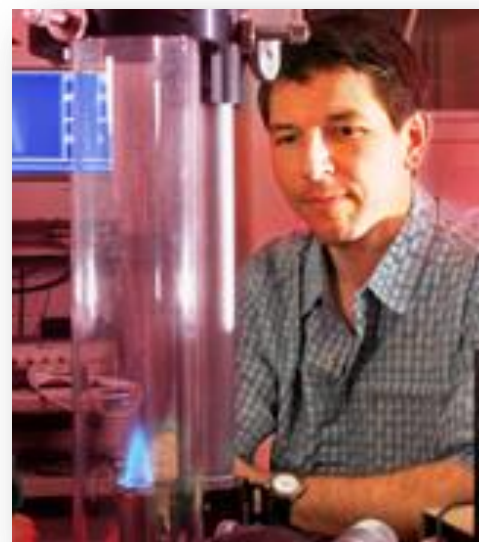
- Create and edit field task assignments
- Monitor progress of assignments
- Support logistics/communications
- Document clues, team location and status
- Incorporate GPS data
- Store all incident data into a single repository
- Create and print maps



IGT4SAR

- Don Ferguson, PhD (Appalachian SAR)
- Integrated Geospatial Tools for SAR
- More analytical tools; focus towards GIS-savvy folks
- Tutorial videos available on YouTube

http://www.youtube.com/results?search_query=IGT4SAR&sm=3



SAR GIS Resources

- Download the eBook *Using GIS for Wildland SAR* from mapsar.net
- Join our Google Group Using GIS in WiSAR
<http://groups.google.com/group/sar-and-gis>
- 6th Annual SARGIS Meeting Dunsmuir, CA (FireWhat HQ) & Morgantown, WV (& online) June 19-22nd - MapSAR training for GIS folks
- Watch the MapSAR and IGT4SAR videos on YouTube and practice with the tools
- Follow the blog <http://wisarandgis.blogspot.com/>
- National Alliance for Public Safety GIS (NAPSG)
- If you have an interest in volunteering, work through GIS Corps (or local SAR organization)



National Park Service

**National Park Service
U.S. Department of the Interior**



BASIC SEARCH AND RESCUE TRAINING



https://connectpro77254837.adobeconnect.com/_a964288825/sar Units 7 & 12c